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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/706,408	11/03/2000	Mitsuru Takeyasu	80A 3002	7889

7590 10/30/2002
Koda and Androlia
2029 Century Park East
Suite 3850
Los Angeles, CA 90067-3024

EXAMINER

WARD, JOHN A

ART UNIT	PAPER NUMBER
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2875

DATE MAILED: 10/30/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/706,408

Applicant(s)

TAKEYASU ET AL.

Examiner

John A. Ward

Art Unit

2875

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 March 2002.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3 is rejected under 35 U.S.C. 103(a) as being unpatentable over McDermott as applied to claim 1 above, and further in view of Ryan, Jr. et al (US 6,244,727).

Regarding claim 1, McDermott ('557) discloses a multi-source lighting device comprising of a plurality of light distributing LEDs S1-S6 mounted in a circular formation on a circuit board 9, figure 9 teaches how they are arranged radially on an horizontal circumference so that a wider divergence of each LED is horizontally oriented (column 8, lines 4-40).

Regarding claim 2, claim 2 of McDermott discloses a lens 32 provided with a diffusion part that diffuses light only in a horizontal direction.

McDermott regarding claims 3 discloses a lens 32, having a diffuses portion (claim 6), figure 1, 2, and 12, teaches how the LED lighting fixtures is comprised of a plurality of light distributing LEDs and are provided radially and on a horizontal circumference.

McDermott does not disclose an elliptically light distributing LEDs.

It is desired to use a plastic film that is lightweight and can protect the elliptically light emitting diode from damage.

Ryan, Jr. et al disclose a lens located in a horizontal position being made of a film being that of polycarbonate or acrylic material in front of an elliptically light distributing light emitting diode 12 (figure 4), column 6, lines 1-10.

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the lighting device of McDermott with the plastic film material of Ryan, Jr. et al in order to provide an optical lens that receives light rays directed in an undesired direction and redirects these light rays by refraction in a desired direction as taught by Ryan, Jr. et al (lines 52-54, column 3).

Claims 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over McDermott in view of Ryan, Jr. et al.

McDermott regarding claims 4-5 discloses all the limitations of the claims comprising of LEDs S1-S7, a lens 32, having a diffuses portion (claim 6), figure 1, 2, and 12, teaches how the LED lighting fixtures is comprise of a plurality of elliptically light distributing LEDs and are provided radially and on a horizontal circumference. Figure 12 show that the lighting fixture can be stacked for an increase of illumination.

McDermott does not disclose that a screw that runs through the bosses of the lighting fixture fastens the stack units or the lens being unit-type lens.

It is desired to provide a means to attach a plurality of circuit boards together in a vertical array in order to provide an increased amount of light emitting from the lighting device, and a means to mount the circuit boards.

Regarding claim 6, Ryan, Jr. et al ('727) discloses an optic lens cell and illuminated signage having a cell array comprising of a plurality of elliptically distributing LEDs 12 (column 6, lines 1-10) mounted on a printed circuit board in a horizontal position adjacent to a unit-type lens 18 for illuminating each light emitting diode in a horizontal direction, and a screw 19 to hold the lens 18 in place to the printed circuit board.

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the lighting device of McDermott with the mounting means of Ryan, Jr. et al in order to provide an optical lens that receives light rays directed in an undesired direction and redirects these light rays by refraction in a desired direction as taught by Ryan, Jr. et al (lines 52-54, column 3).

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ryan, Jr. et al.

Regarding claim 7, Ryan, Jr. et al discloses the claimed invention except for the LED's having a divergence angle of 120-150 degrees. It would have been obvious to one of ordinary skill in the art the time the invention was made to provide the LED's having a horizontal divergence of an angle from 120-150 degrees, since it has been held that where the general conditions of a claim are disclosed in the prior art,

discovering the optimum or workable ranges involves only routine skill in the art. In re Aller, 105 USPQ 233.

Response to Arguments

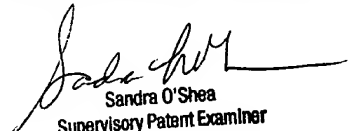
Applicant's arguments filed March 27, 2002 have been fully considered but they are not persuasive. Regarding claim 6, Ryan, Jr. et al discloses in column 5, lines 21-31 that the mounting member is a pin, rod, or other mounting mechanism which would include a screw.

Applicant's arguments with respect to claims 1-5, and 7 have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John A. Ward whose telephone number is 703-305-5157. The examiner can normally be reached on Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sandra O'Shea can be reached on 703-305-4939. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7722 for regular communications and 703-308-7724 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0596.


Sandra O'Shea
Supervisory Patent Examiner
Technology Center 2800

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Art Unit: 2875

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JAW
October 23, 2002